

Proyecto Isomorfismo, Batería de Pruebas

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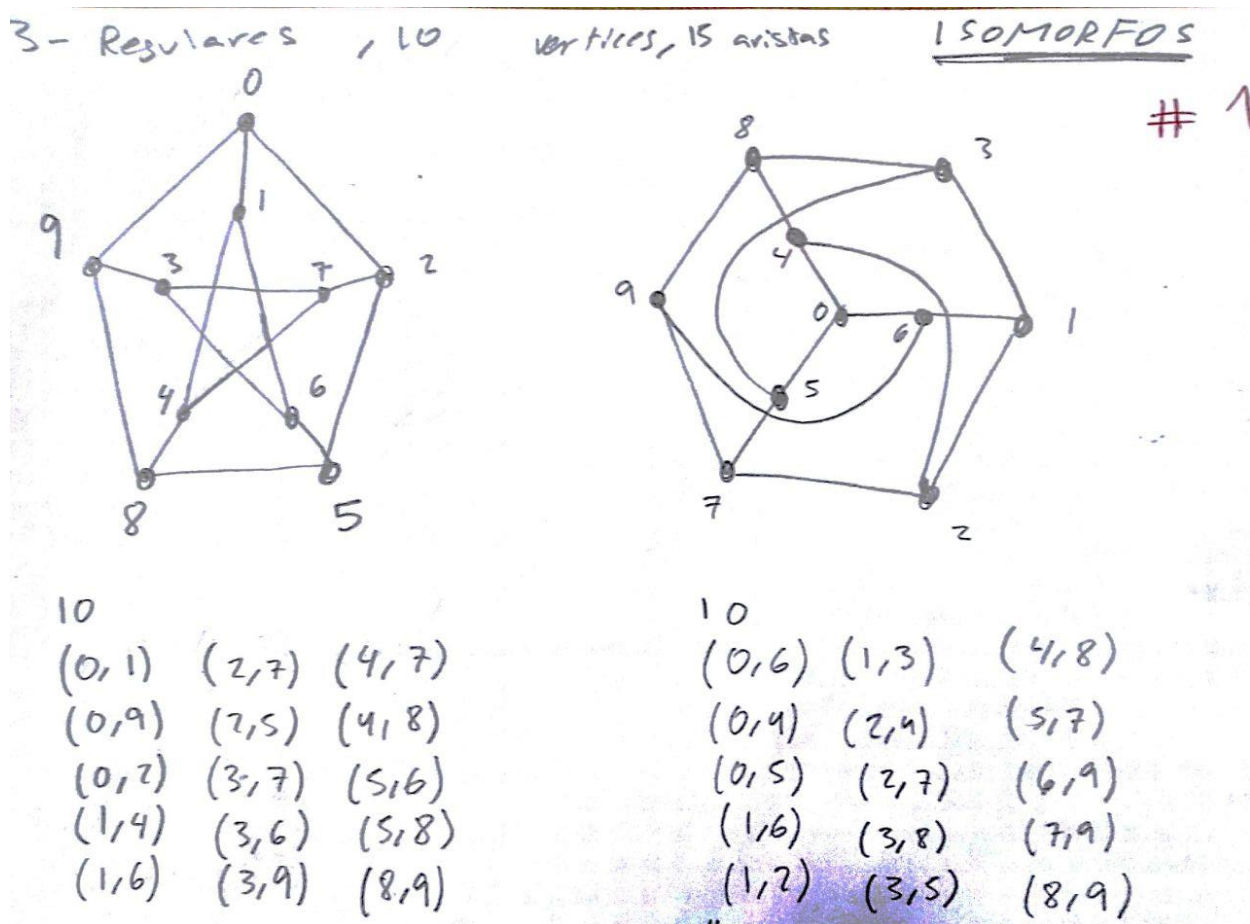
“Divide y vencerás...”

-Maquiavelo (Julio Cesar)

3-REGULARES, ISOMORFOS

"Grafo1A.txt"

"Grafo1B.txt"



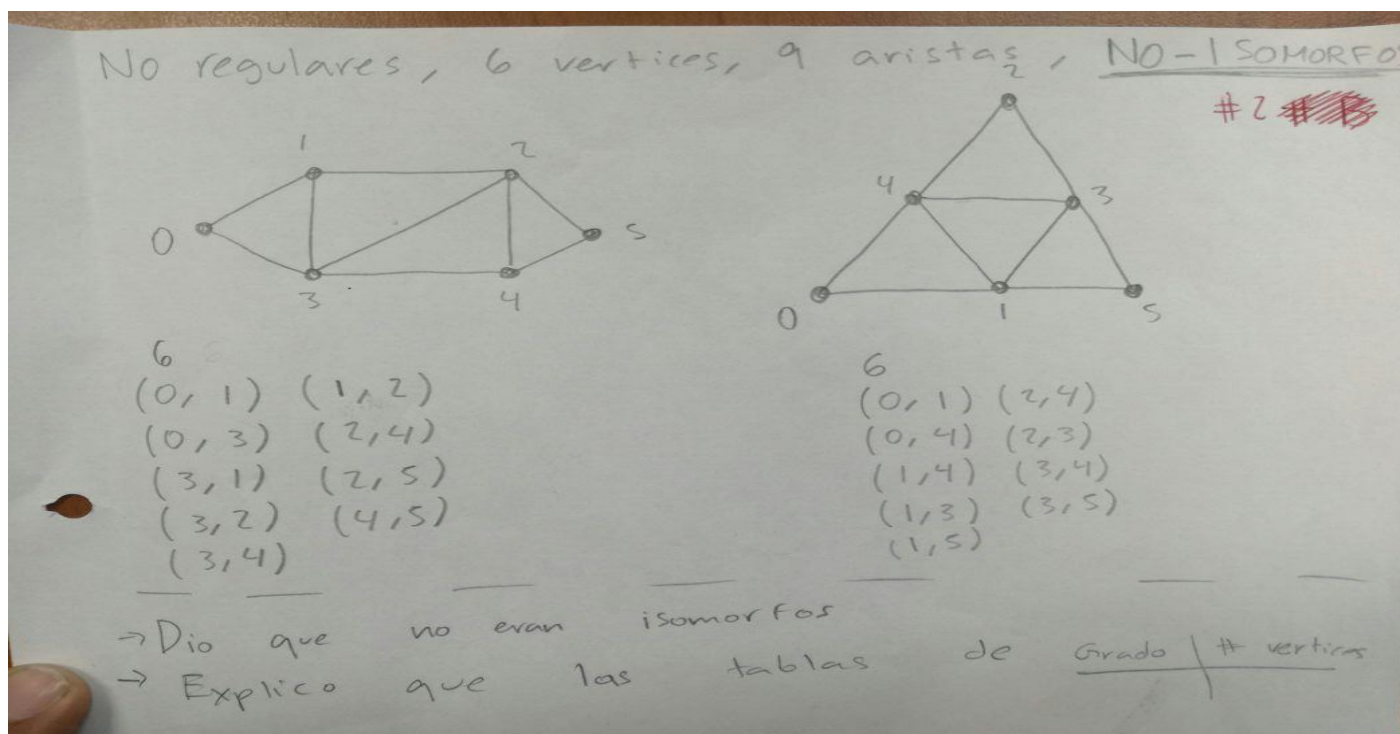
```

FUNCION ISOMORFISMO
G1 -> G2
0 -> 0
1 -> 6
2 -> 4
3 -> 7
4 -> 1
5 -> 8
6 -> 9
7 -> 2
8 -> 3
9 -> 5
  
```

NO REGULARES, NO-ISOMORFOS

"Grafo2A.txt"

"Grafo2B.txt"



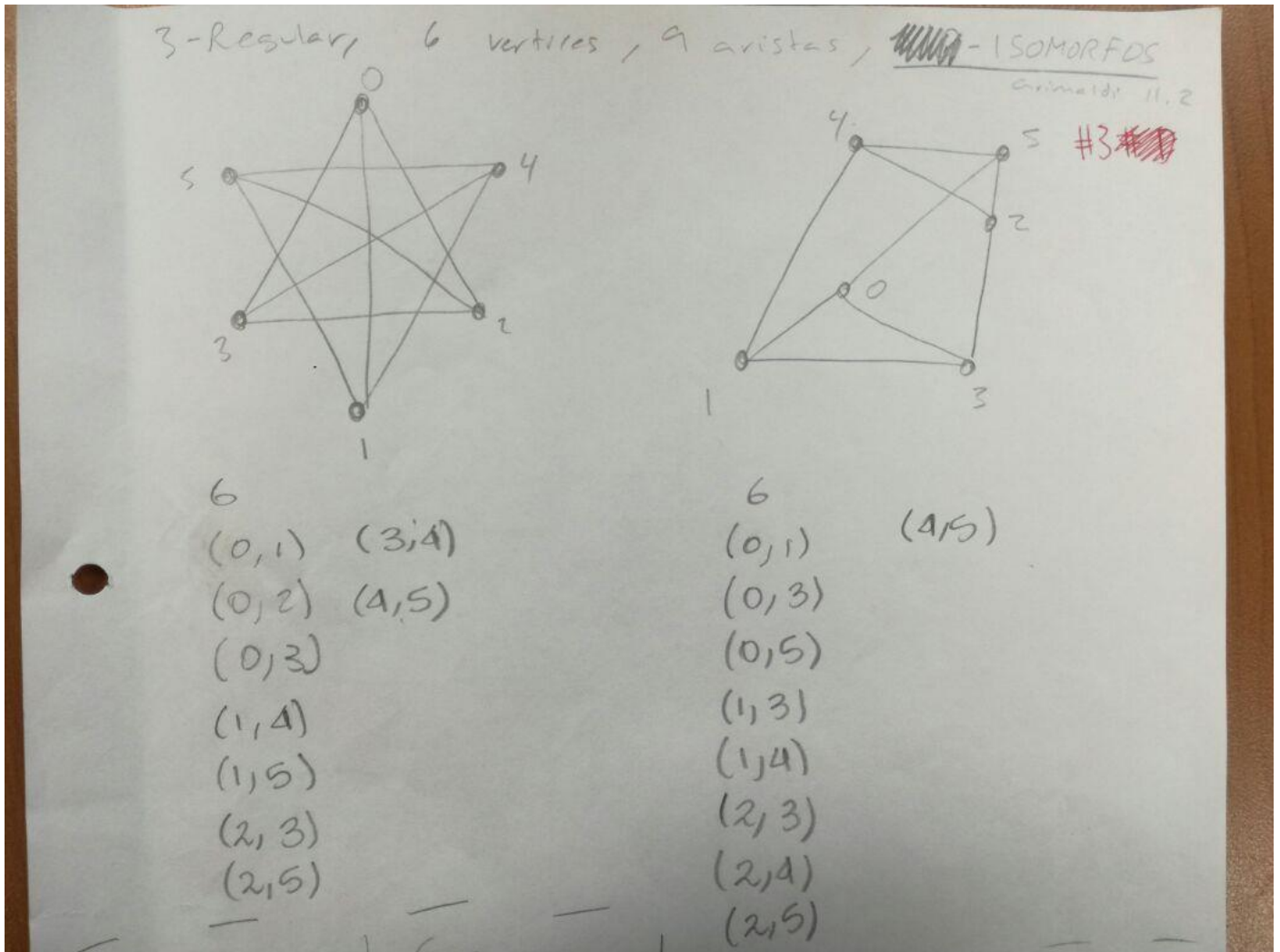
```

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GRAPH A:
- Vertices Quantity: 6
- Edges Quantity: 9
- Vertex per Degree:
  | Degree | # of Vertex |
  |-----|-----|
  | 0      | 0           |
  | 1      | 0           |
  | 2      | 2           |
  | 3      | 2           |
  | 4      | 2           |
  |-----|-----|
GRAPH B:
- Vertices Quantity: 6
- Edges Quantity: 9
- Vertex per Degree:
  | Degree | # of Vertex |
  |-----|-----|
  | 0      | 0           |
  | 1      | 0           |
  | 2      | 3           |
  | 3      | 0           |
  | 4      | 3           |
  |-----|-----|
Vertex Per Degree tables don't match
THEREFORE, GRAPHS ARE NOT ISOMORPHIC
  
```

3-REGULAR, ISOMORFOS

"Grafo3A.txt"

"Grafo3B.txt"



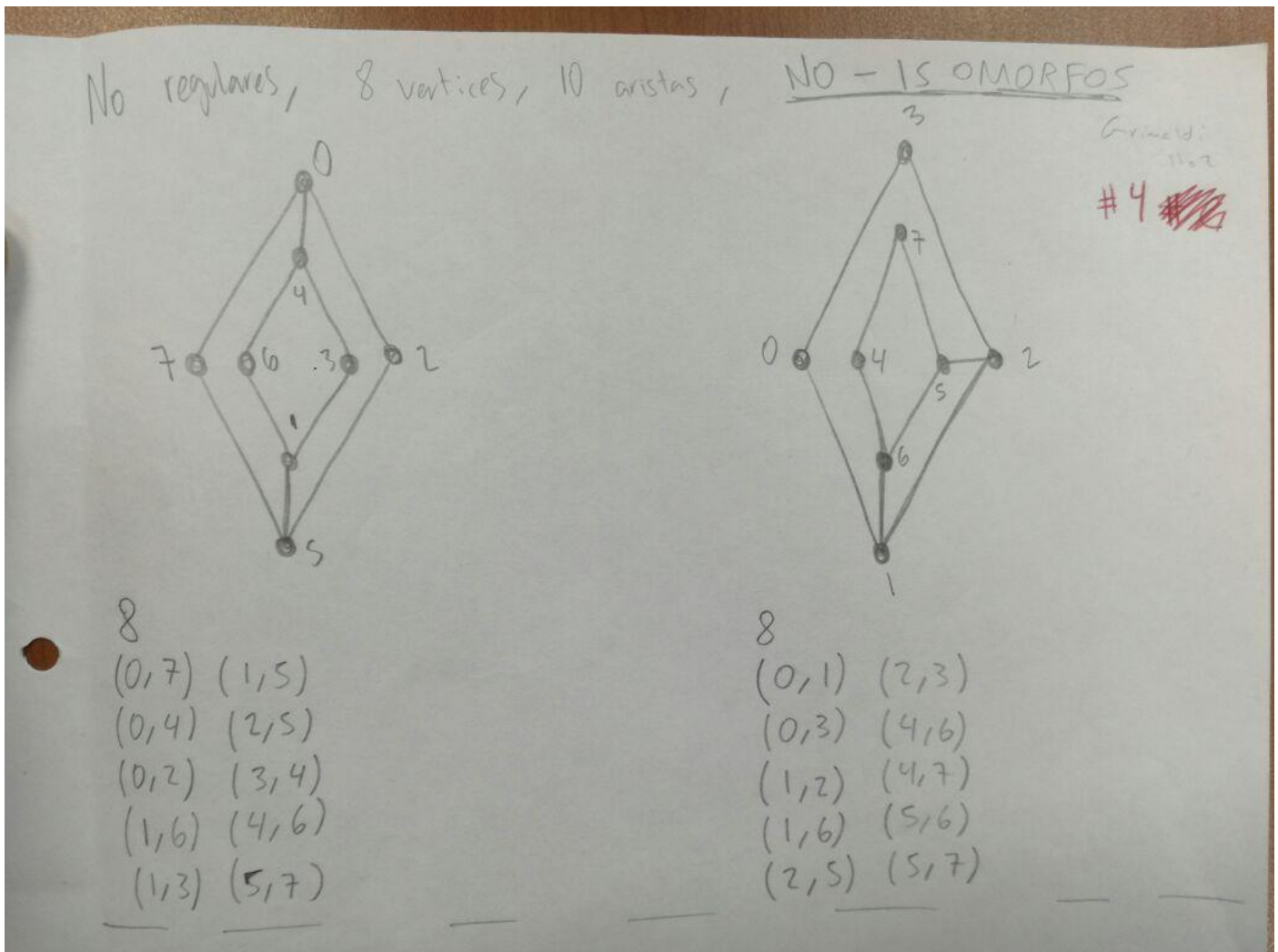
```

FUNCION ISOMORFISMO
G1 -> G2
0 -> 0
1 -> 5
2 -> 1
3 -> 3
4 -> 2
5 -> 4
  
```

NO REGULARES, NO-ISOMORFOS

"Grafo4A.txt"

"Grafo4B.txt"

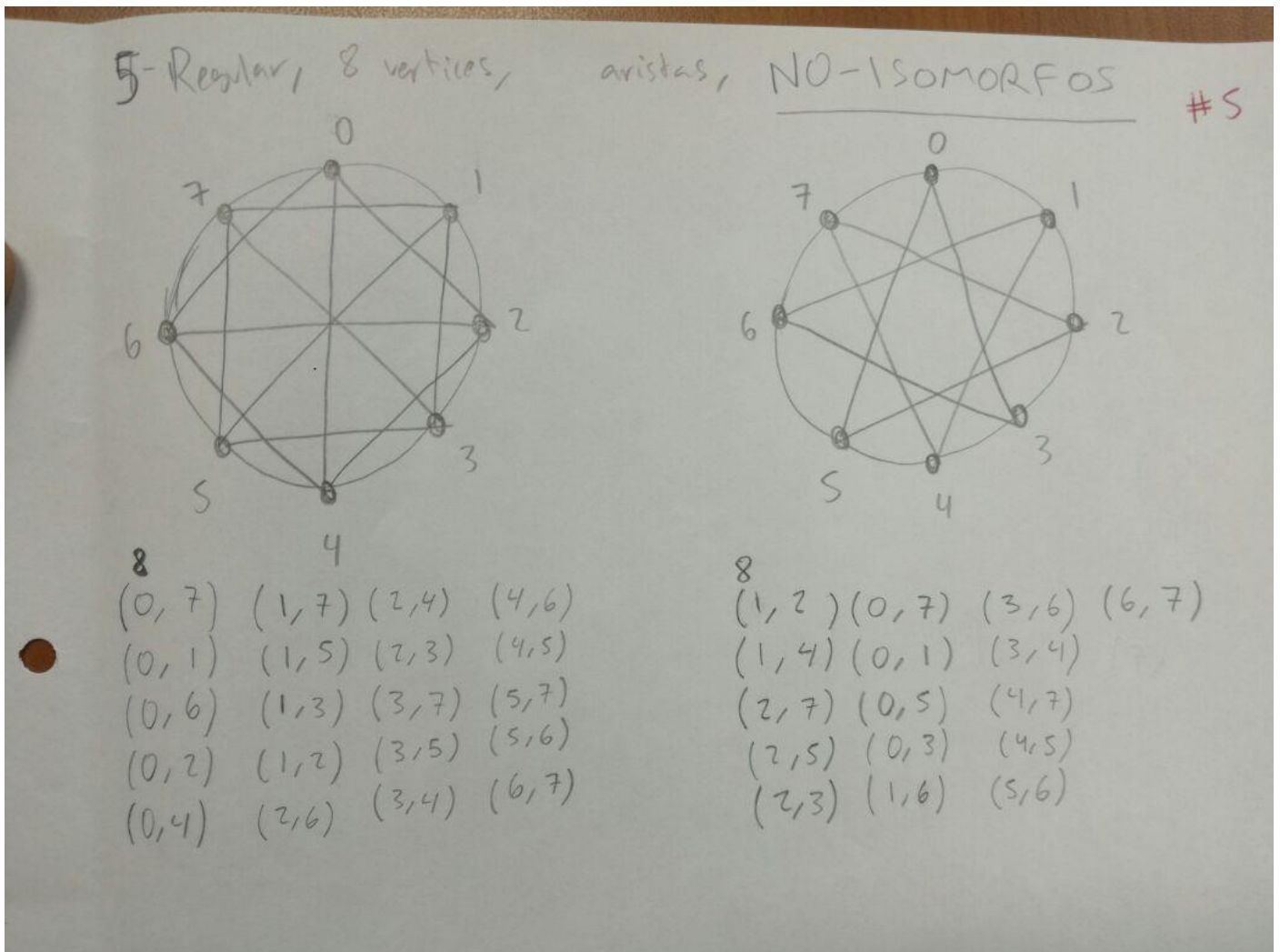


ISOMORPHISM FUNCTION NOT FOUND, GRAPHS ARE NOT ISOMORPHIC

NO REGULARES, NO-ISOMORFOS

"Grafo5A.txt"

"Grafo5B.txt"

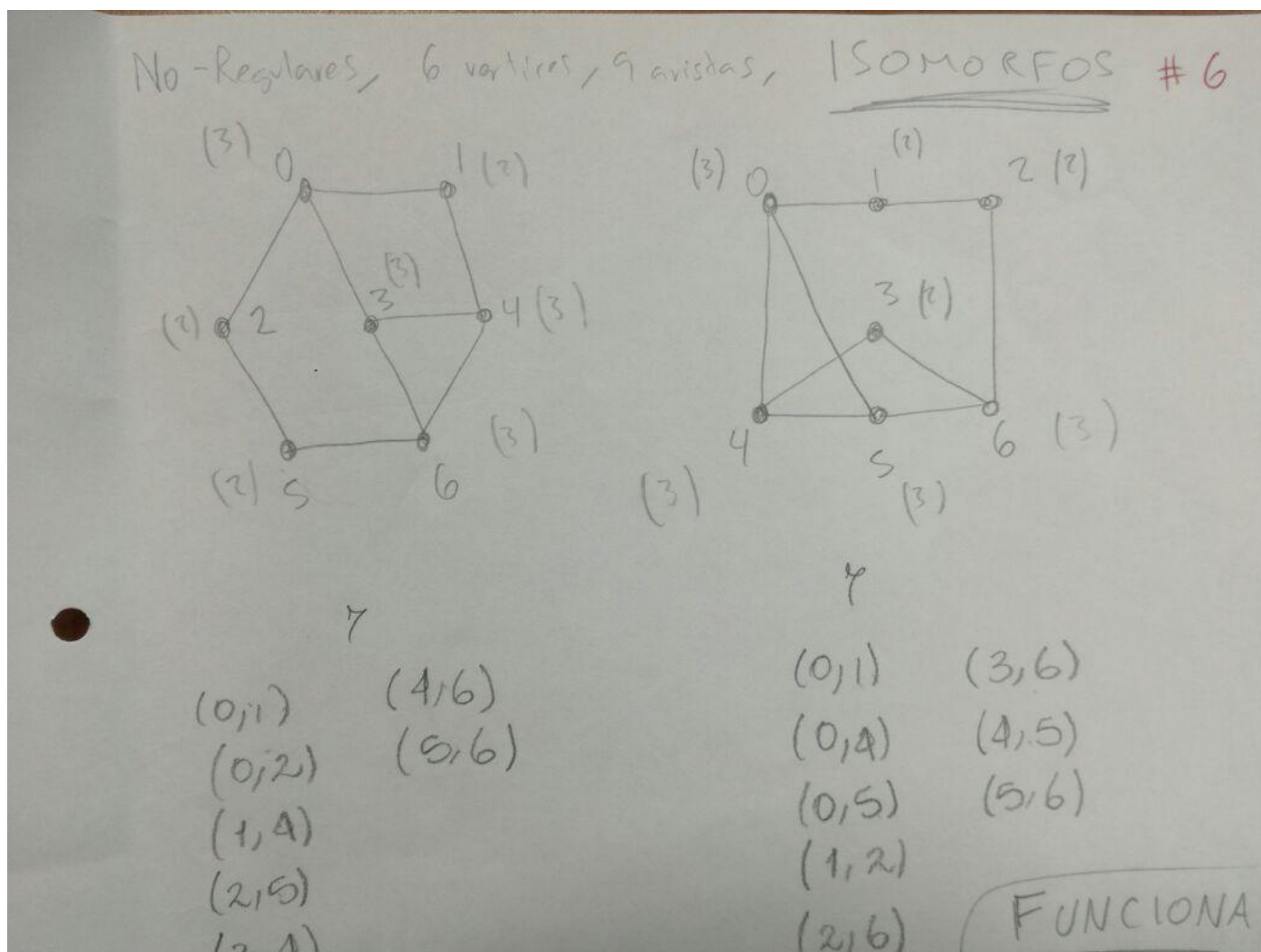


Number of edges doesn't match
Vertex Per Degree tables don't match
THEREFORE, GRAPHS ARE NOT ISOMORPHIC

NO-REGULAR, ISOMORFOS

"Grafo6A.txt"

"Grafo6B.txt"



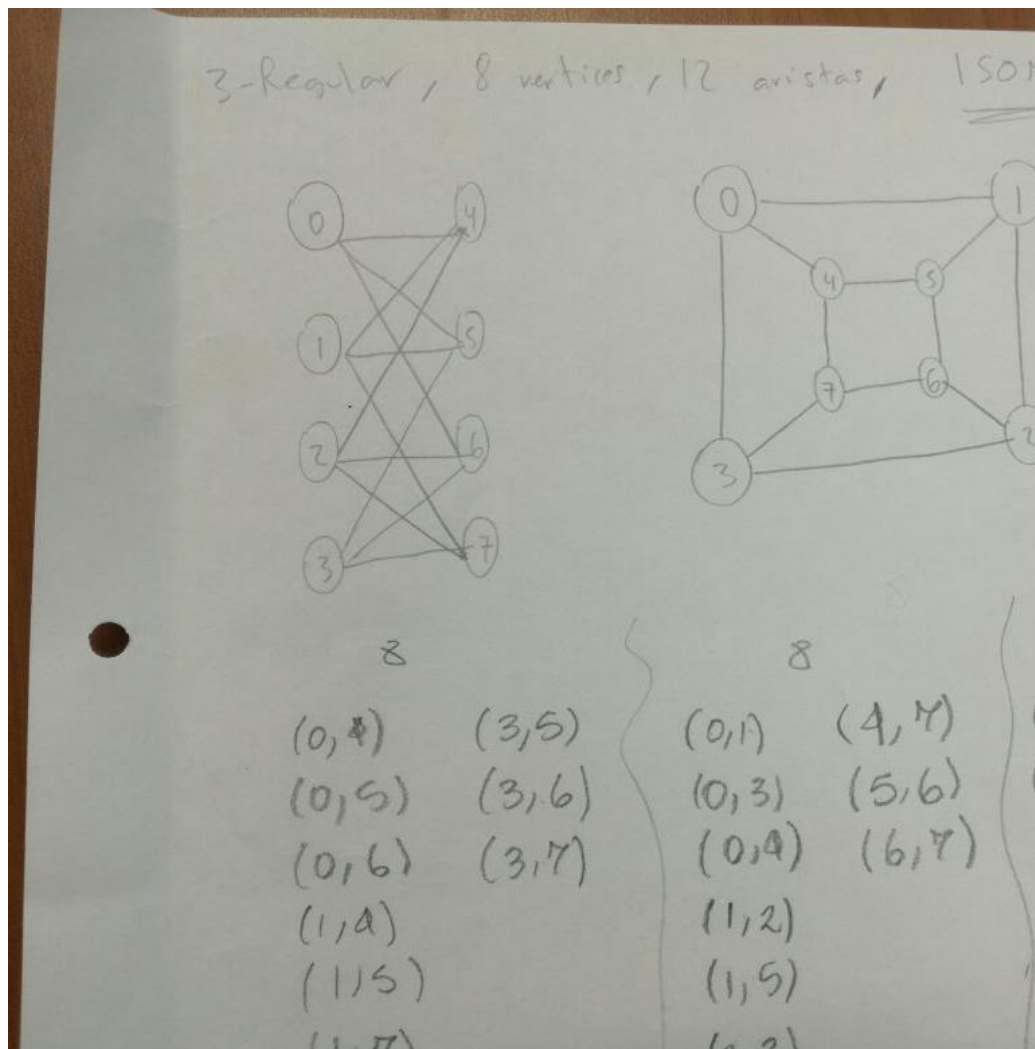
```

FUNCION ISOMORFISMO
G1 -> G2
0 -> 6
1 -> 3
2 -> 2
3 -> 5
4 -> 4
5 -> 1
6 -> 0
  
```

3-REGULAR, ISOMORFOS

"Grafo7A.txt"

"Grafo7B.txt"



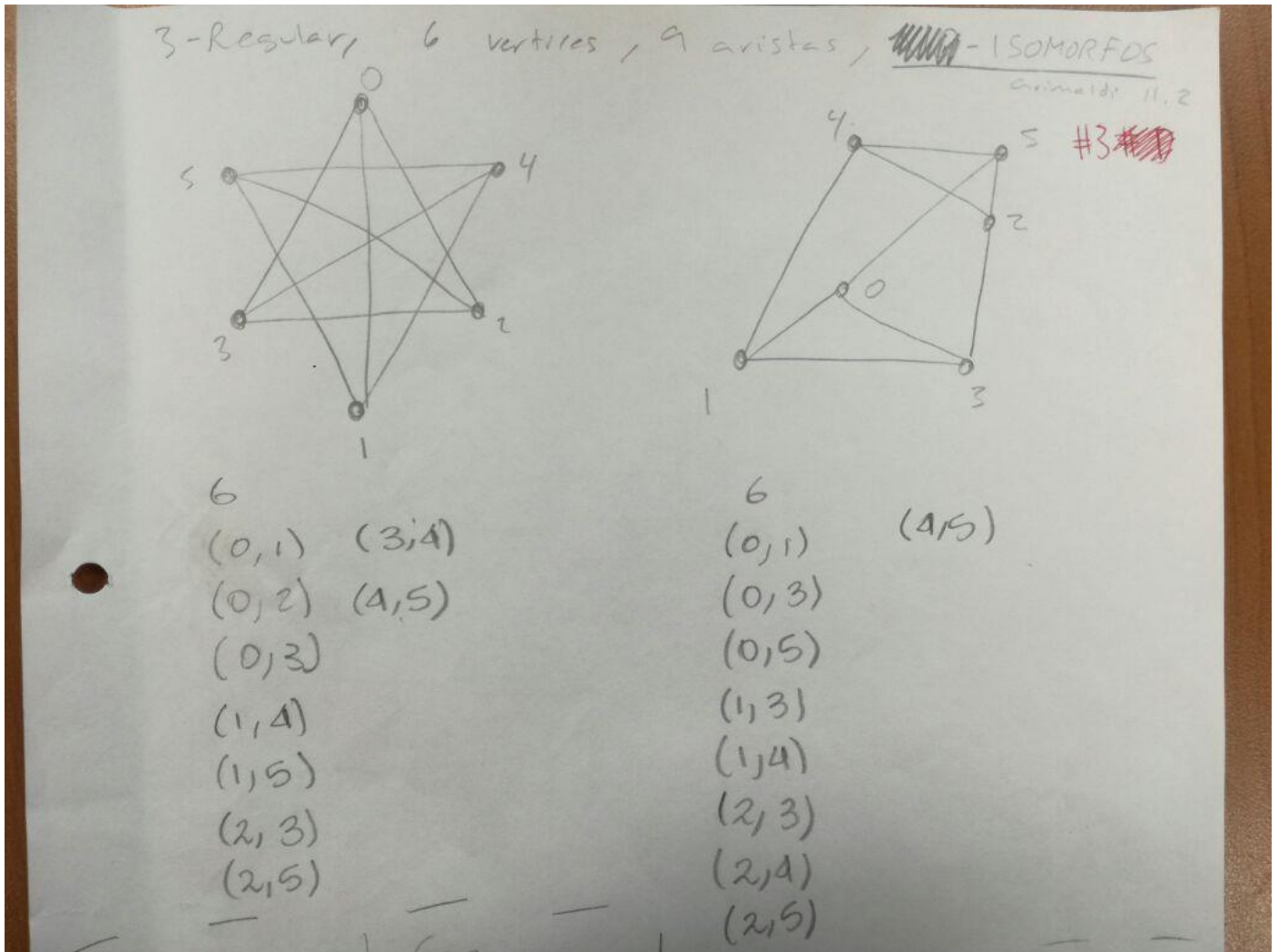
```

FUNCION ISOMORFISMO
G1 -> G2
0 -> 0
1 -> 2
2 -> 5
3 -> 7
4 -> 1
5 -> 3
6 -> 4
7 -> 6
  
```


3-REGULAR, ISOMORFOS

"Grafo8A.txt"

"Grafo8B.txt"



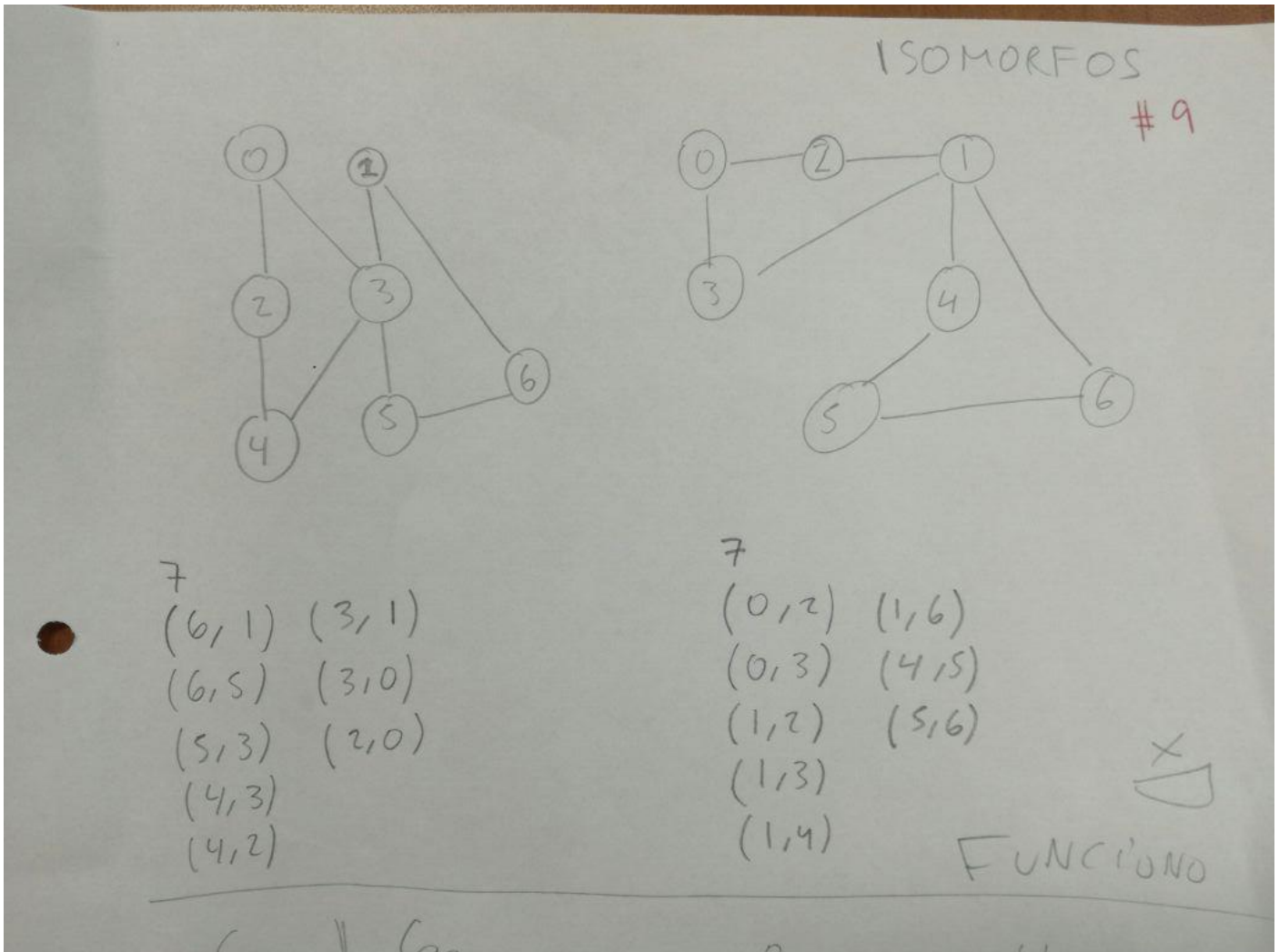
```

FUNCION ISOMORFISMO
G1 -> G2
0 -> 0
1 -> 2
2 -> 5
3 -> 3
4 -> 4
5 -> 1
  
```

NO-REGULARES, ISOMORFOS

"Grafo9A.txt"

"Grafo9B.txt"



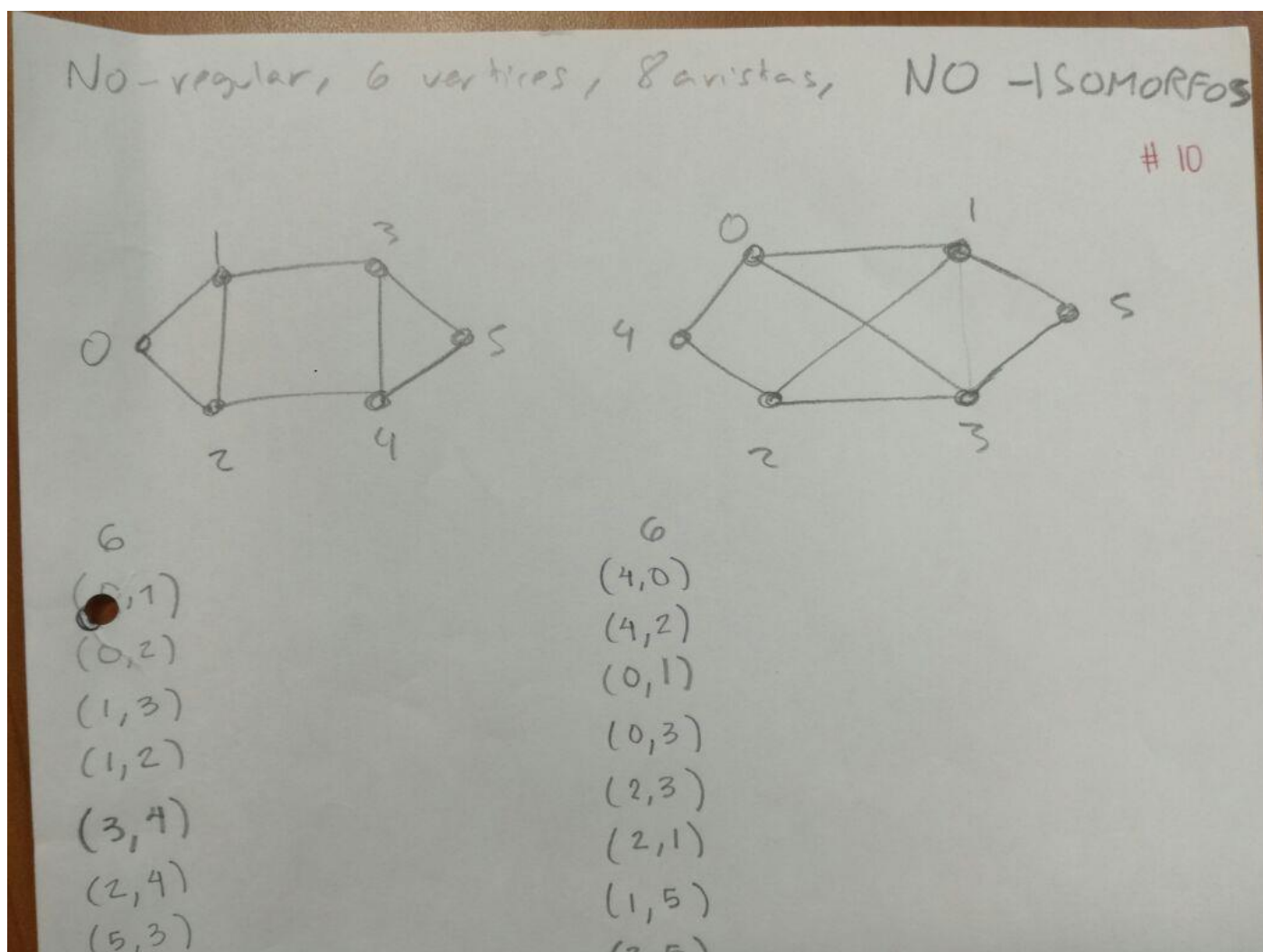
```

FUNCION ISOMORFISMO
G1 -> G2
0 -> 4
1 -> 3
2 -> 5
3 -> 1
4 -> 6
5 -> 2
6 -> 0
  
```

NO REGULARES, NO-ISOMORFOS

"Grafo10A.txt"

"Grafo10B.txt"

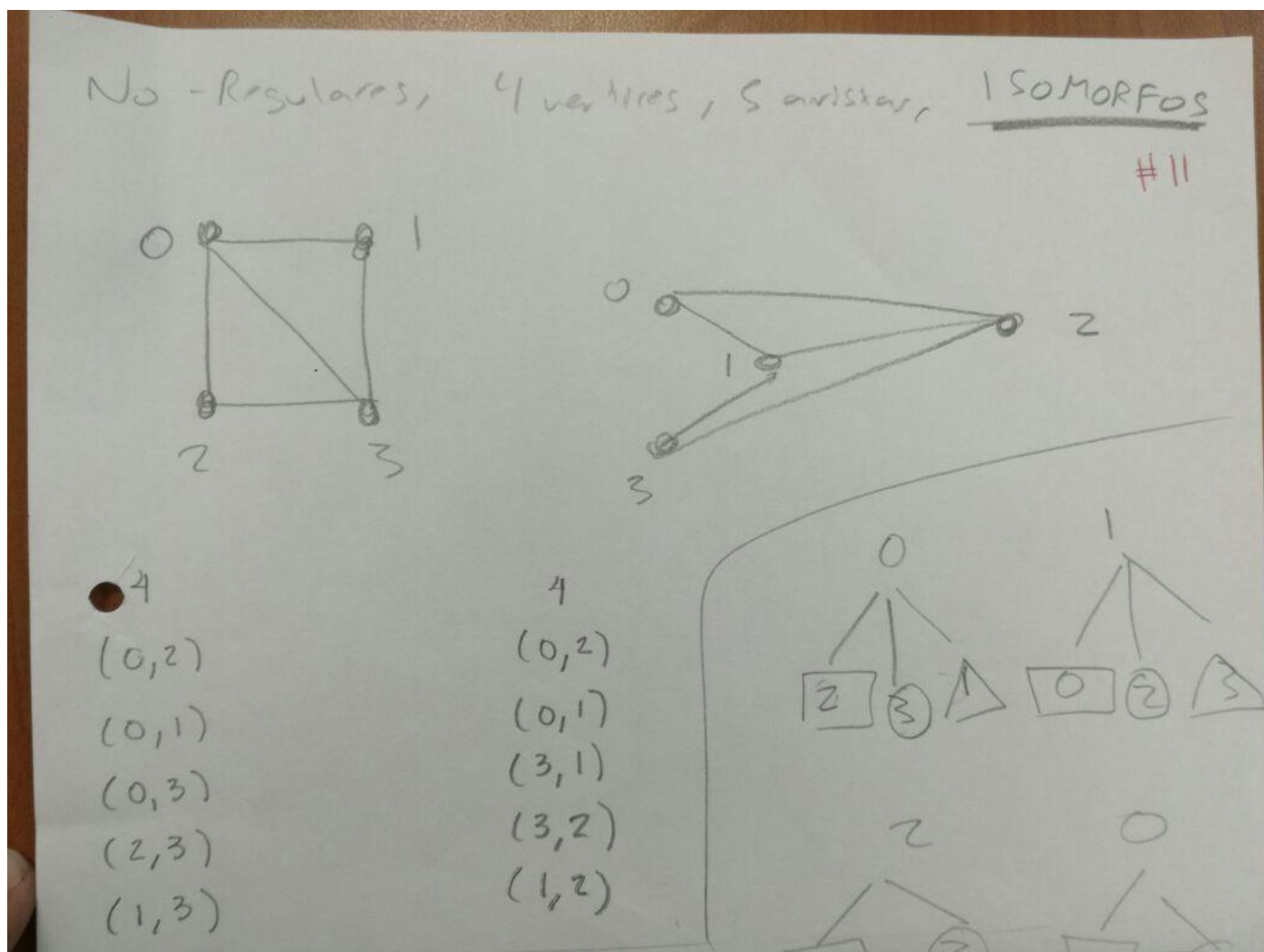


ISOMORPHISM FUNCTION NOT FOUND, GRAPHS ARE NOT ISOMORPHIC

NO-REGULARES, ISOMORFOS

"Grafo11A.txt"

"Grafo11B.txt"



```

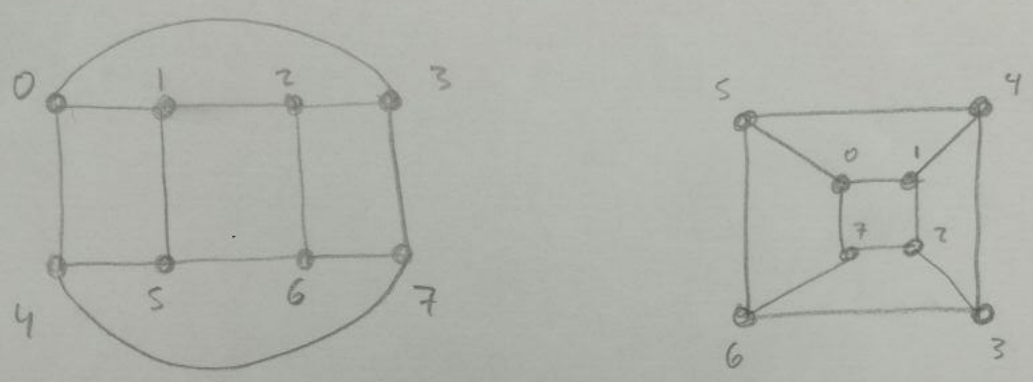
FUNCION ISOMORFISMO
G1 -> G2
0 -> 1
1 -> 3
2 -> 0
3 -> 2
  
```

3-REGULAR, ISOMORFOS

"Grafo12A.txt"

"Grafo12B.txt"

3- Regular, 8 vertices, 12 aristas, ISOMORFOS #12



8

(7,6)	(5,1)	(2,1)
(7,3)	(5,4)	(1,0)
(7,4)	(4,0)	
(6,2)	(3,0)	
(6,5)	(3,2)	

8

(7,0)	(5,0)	(2,1)
(7,2)	(5,4)	(1,0)
(7,6)	(4,1)	
(6,5)	(4,3)	
(6,3)	(3,2)	

Funcion $\bar{0}$

G_1 | G_2

```

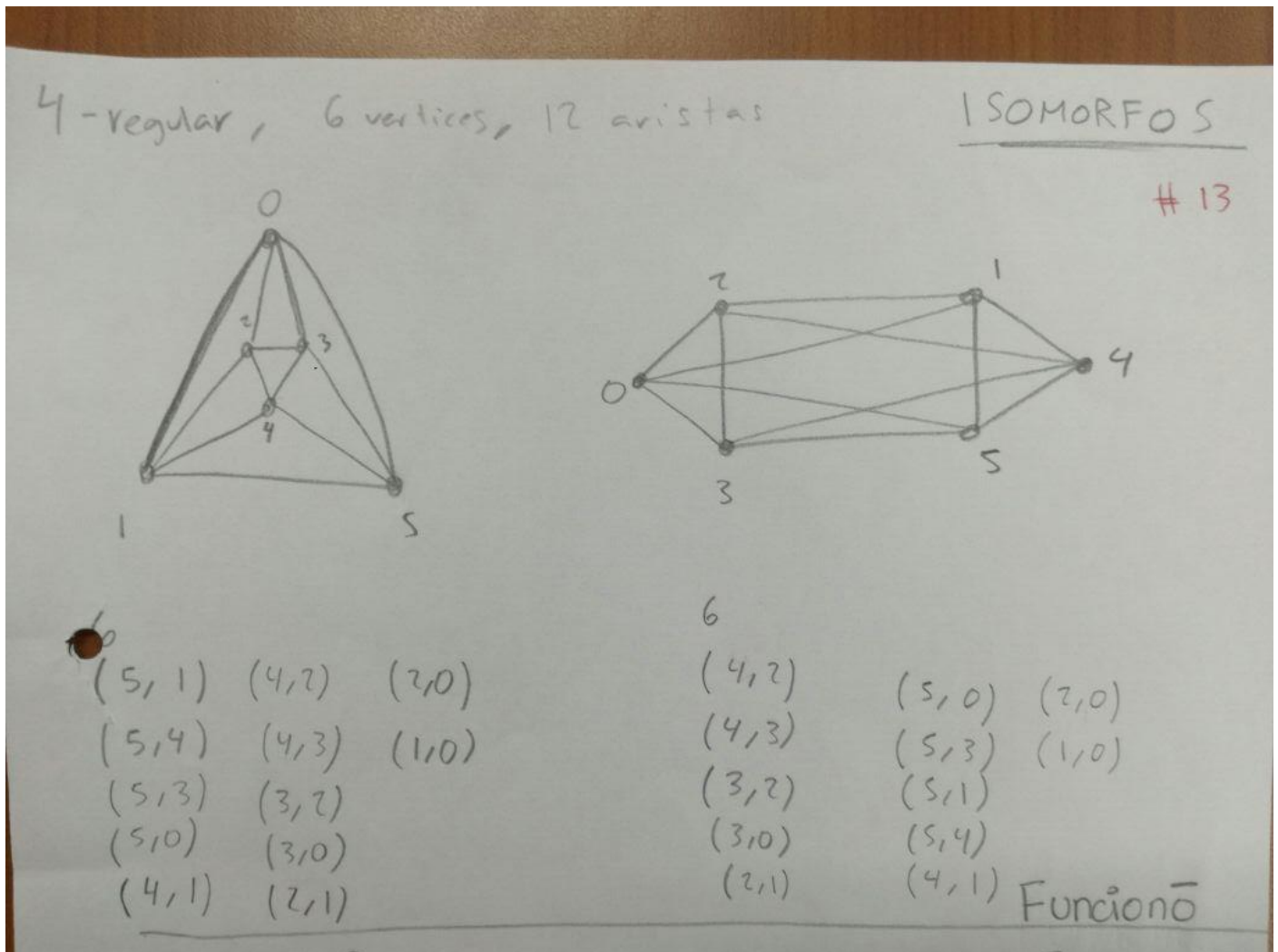
FUNCION ISOMORFISMO
G1 -> G2
0 -> 1
1 -> 2
2 -> 7
3 -> 0
4 -> 4
5 -> 3
6 -> 6
7 -> 5

```

4-REGULAR, ISOMORFOS

"Grafo13A.txt"

"Grafo13B.txt"

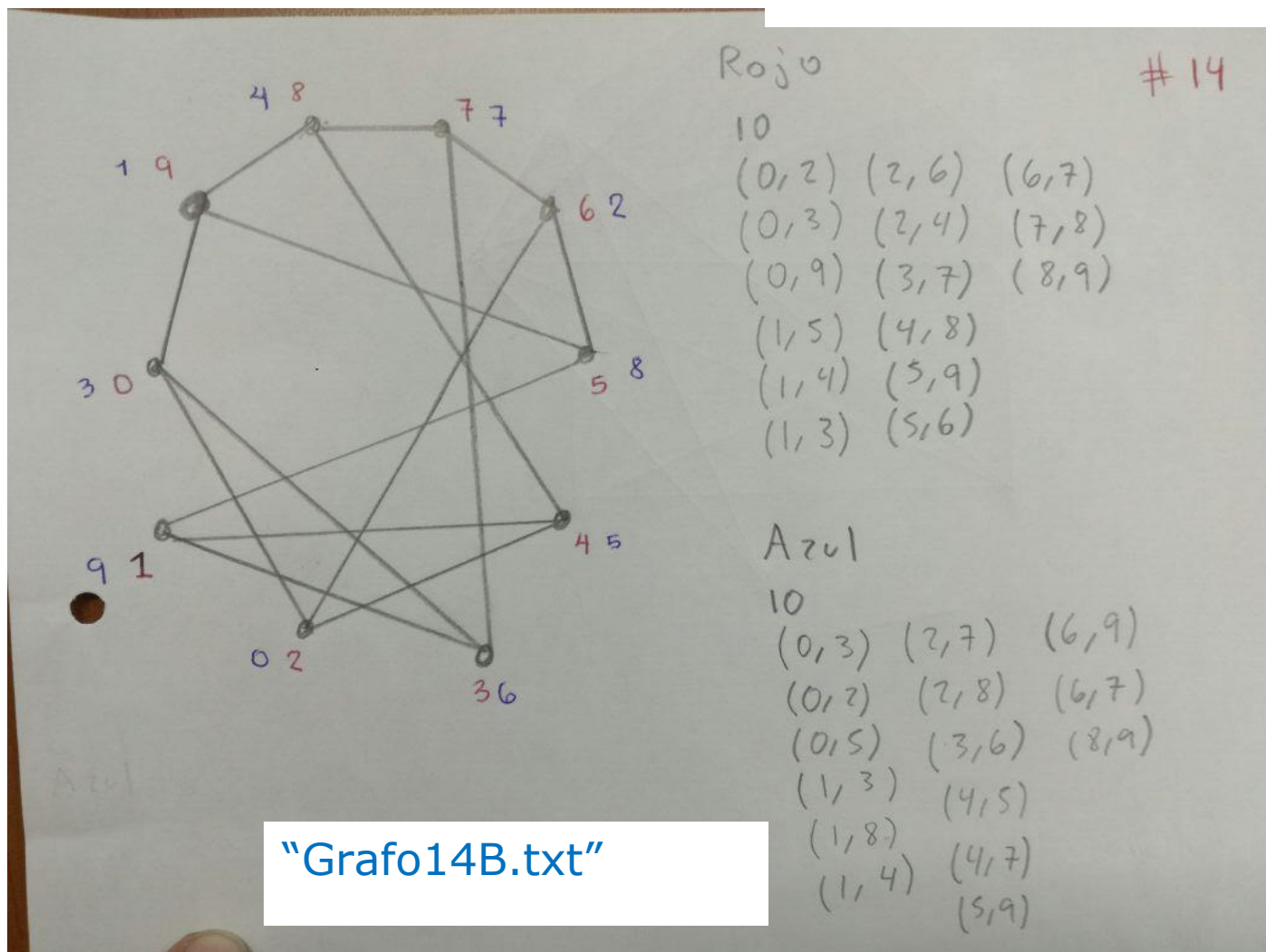


```

FUNCION ISOMORFISMO
G1 -> G2
0 -> 0
1 -> 2
2 -> 1
3 -> 5
4 -> 4
5 -> 3
  
```


3-REGULARES, ISOMORFOS

"Grafo14A.txt"



"Grafo14B.txt"

```

FUNCION ISOMORFISMO
G1 -> G2
0 -> 1
1 -> 7
2 -> 3
3 -> 4
4 -> 6
5 -> 2
6 -> 0
7 -> 5
8 -> 9
9 -> 8

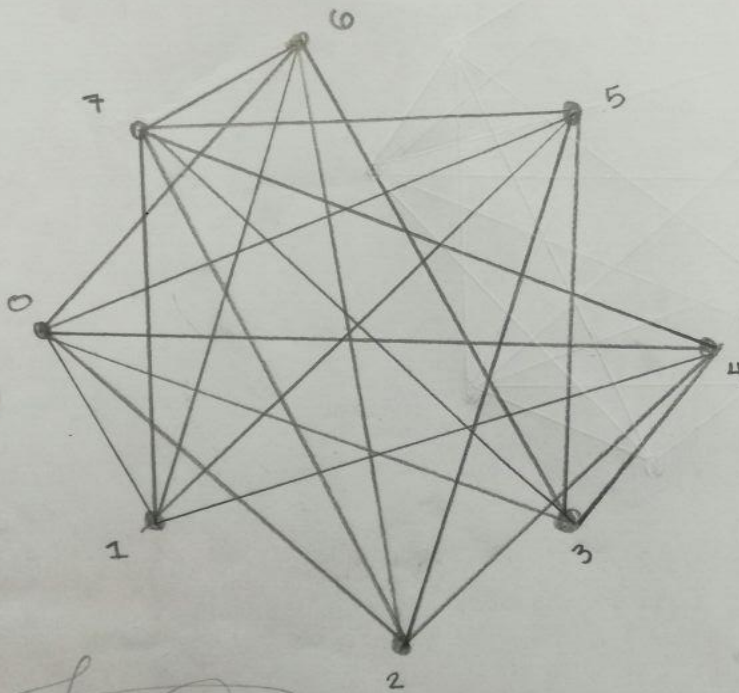
```

NO-REGULAR, ISOMORFOS

"Grafo15A.txt"

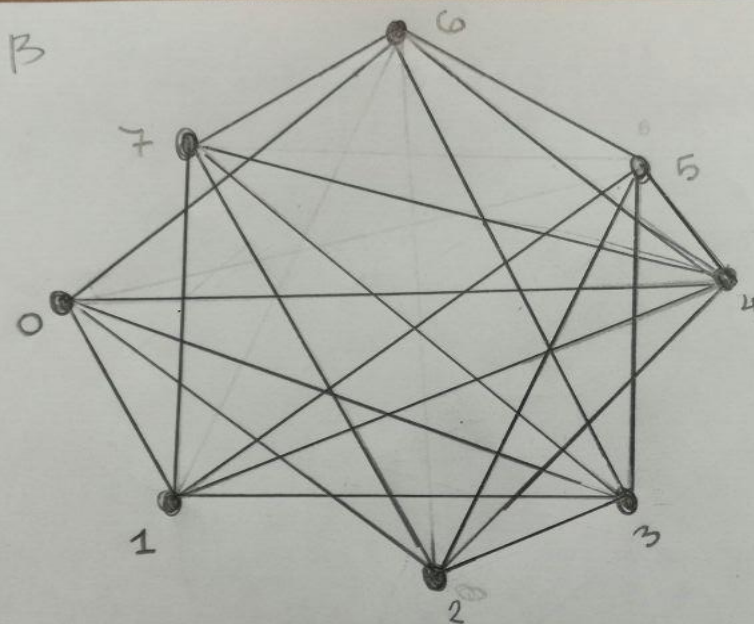
ISOMORFOS

#15



8
 (0,6) (1,7)
 (0,5) (1,6)
 (0,4) (1,5)
 (0,3) (1,4)
 (0,2) (2,7)
 (0,1) (2,6)

(2,5) (4,7)
 (2,4) (5,7)
 (3,7) (6,7)
 (3,6)
 (3,5)
 (3,4)



8
 (0,6) (1,5)
 (0,4) (1,4)
 (0,3) (1,3)
 (0,2) (2,7)
 (0,1) (2,5)
 (1,7) (2,4)

(2,3) (5,6)
 (3,6) (6,7)
 (3,5) (7,3)
 (4,7)
 (4,6)
 (4,5)

"Grafo15B.txt"

```
1
FUNCION ISOMORFISMO
G1 -> G2
0 -> 1
1 -> 5
2 -> 4
3 -> 0
4 -> 7
5 -> 3
6 -> 6
7 -> 2
```